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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/638,606	08/15/2000	Sean P. Burns	GIO-007-US	1629

7590 07/15/2005
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EXAMINER

GELLNER, JEFFREY L

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 07/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/638,606	BURNS ET AL.	
	Examiner	Art Unit	
	Jeffrey L. Gellner	3643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3 and 13-33 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3, 13-18, 21, 23, 25, 27, 29, 31 and 33 is/are rejected.
- 7) ☒ Claim(s) 22, 24, 26, 28, 30 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of the species combination - tetrazole, alkaline earth metal, clay, and ammonium sulfate - in the reply filed on 13 April 2005 and is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 19- and 20 are withdrawn from examination because they are drawn to a non-elected species.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 13-18, 21, 23, 25, 27, 29, 31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poole (US 5,139,588; document E on the 892 accompanying the office action that is paper no. 10) in view of Poole et al. (US 3,797,854).

As to claims 3, 18, 21, 23, 25, 27, 29, 31, and 33, Poole et al. ('588) discloses a vehicle occupant restraint system (abstract) comprising an inflatable air bag (inherent in abstract); a gas generator (col. 6 lines 39-65) for inflating the air bag; a nitrogen-containing gas generant ("tetrazole" of col. 5 lines 3-4) composition within the gas generator that forms nitrogen oxide or

Art Unit: 3643

dioxide upon combustion (from col. 8 lines 39-50). Not disclosed is a selective non-catalytic reducing compound, that is an ammonium containing compound, placed within the gas generator in heterogeneous relation to the gas generator composition. Poole et al. ('854), however, discloses an selective non-catalytic reducing compound ("ammonium carbonate" of col. 2 lines 1-4) that is placed within the gas generator in heterogeneous relation to the gas generator composition (from "then passes into a chamber containing ammonium carbonate" of col. 2 lines 1-3). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Poole et al. ('588) by adding a non-catalytic reducing compound as disclosed by Poole et al. ('854) so as to change the CO to CO₂ so as to reduce the amount of toxic gas in the system.

As to claims 13, 15-17, Poole ('588) as modified by Poole et al. ('854) further disclose the generant composition extruded into a desirable shape ("pellets" of examples of cols. 9 and 10 of Poole et al. ('588)), the generant producing nitrogen oxide (Poole et al. ('588) at 39-48), and the reducing compound discretely interspersed about the gas generant composition (from "chamber containing ammonium carbonate" of col. 2 lines 1-3 of Poole et al. ('545) with the reducing compound having one mole of elemental nitrogen per one mole of NO_x produced by the gas generant composition.

As to claim 14, Poole ('588) as modified by Poole et al. ('854) further disclose tetrazole, alkaline earth metal, and clay (Poole ('588) at col. 6 lines 39-65).

Art Unit: 3643

Allowable Subject Matter


Claims 22, 24, 26, 28, 30, and 32 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jeffrey L. Gellner
Primary Examiner
Art Unit 3643